

**REMARKS**

In light of the foregoing Amendment to the Specification, the Replacement Sheet of FIG. 1 and FIG. 2 attached hereto, and the following Remarks, prompt examination on the merits is respectfully requested. No new matter has been added.

**Amendments Addressing Sequence Rules Compliance**

The Examiner has alleged that the above-identified Application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid disclosures set forth in 37 C.F.R. 1.821(a)(1) and (a)(2) but fails to comply with the requirements of 37 C.F.R. 1.821 through 1.825. Applicant disagrees with this allegation by the Examiner. However, solely in an effort to expedite prosecution, Applicants have amended FIG. 1 and the specification to remove the Application from the requirements of 37 C.F.R. 1.821 through 1.825.

Applicants have submitted a Replacement Sheet including an amended FIG. 1 and FIG. 2 as originally filed. Amended FIG. 1 includes "N's" in place of the "A's," "C's," "G's," and "T's" present in FIG. 1 as originally filed. Additionally, the foregoing amendment to the specification adds language to the specification detailing that the "N's" in FIG. 1 represent any of the four DNA nucleotides "A," "C," "G," or "T."

Upon entry of the Replacement Sheet of amended FIG. 1 and FIG. 2 as originally filed and the foregoing amendment to the specification, it is believed that the Application does not fall under the requirements of 37 C.F.R. 1.821 through 1.825. Notice to that effect is requested.

**Response to Election of Species Requirement**

**Species A and B**

With regard to item 2 on page 3 of the Office Action mailed December 9, 2005 (hereinafter “Dec. 2005 Office Action”), Applicant hereby elects, with traverse, **Species B**, which includes claims 7, 8, 26, 27, 45, 46, 61, 69, and 77, wherein claims 1-4, 9-23, 28-42, 47-59, 62-67, 70-75, and 78-81 are generic.

**Species C and D**

With regard to item 3 on page 3 of the Dec. 2005 Office Action, applicant hereby provisionally elects, with traverse, **Species D**, which includes claims 1-16, 18-35, 37-54, and 56-81. For the reasons set forth below, Applicant requests reconsideration and withdrawal of the election requirement between species C and Species D.

Applicant believes the Examiner’s division of claims into Species C and Species D is improper for at least the reason that there are no claims explicitly limiting the claim scope to the language set forth by the Examiner as characterizing Species D (“the chromosomal region is part of a chromosome”). Under the division of species provided by the Examiner, all claims in Species D appear to be generic, as claims 17, 36, and 55 (all allegedly in Species C) are the only claims wherein the chromosomal region has been explicitly addressed in this fashion.

Assuming, *arguendo*, that the Examiner’s division into Species C and Species D is proper, the Examiner’s characterization of Species D, is incorrect and should be modified. On page 3 of the Dec. 2005 Office Action, the Examiner characterizes Species D as “the chromosomal region is part of a chromosome.” Applicant contends that this characterization

improperly implies all claims falling into Species D have a chromosomal region that is part of a chromosome, when no such language is present in these claims. As such, the characterization should be changed.

Nevertheless, Applicant's provisional election of alleged Species D should in no way be interpreted as limiting the elected claims with the language: "the chromosomal region is part of a chromosome."

Species E and F

With regard to item 4 on page 4 of the Dec. 2005 Office Action, applicant hereby provisionally elects, with traverse, **Species F**, which includes claims 1-17, 19-36, 38-55, 57-81. For the reasons set forth below, Applicant requests reconsideration and withdrawal of the election requirement between Species E and Species F.

Applicant believes the Examiner's division of claims into Species E and Species F is improper for at least the reason that there are no claims explicitly limiting the claim scope to the language set forth by the Examiner as characterizing Species F ("the spatial expression patterns are from the same chromosomes"). Under the division of species provided by the Examiner, all claims in Species F appear to be generic, as claims 18, 37, and 56 (all allegedly in Species E) are the only claims wherein the chromosomal origin of the spatial expression patterns has been explicitly addressed in this fashion.

Assuming, *arguendo*, that the Examiner's division into Species E and Species F is proper, the Examiner's characterization of Species F, is incorrect and should be modified. On page 4 of the Dec. 2005 Office Action, the Examiner characterizes Species F as "the spatial expression

patterns are from the same chromosomes.” Applicant contends that this characterization improperly implies all claims falling into Species F have spatial expression patterns that are from the same chromosome, when no such language is present in these claims. As such, the characterization should be changed.

Nevertheless, Applicant’s provisional election of alleged Species F should in no way be interpreted as limiting the elected claims with the language: “the spatial expression patterns are from the same chromosomes.”

Species G and H

With regard to item 5 on page 4 of the Dec. 2005 Office Action, applicant hereby provisionally elects, with traverse, **Species H**, which includes claims 1-18, 20-37, 39-56, and 58-81. For the reasons set forth below, Applicant requests reconsideration and withdrawal of the election requirement between Species G and Species H.

Applicant believes the Examiner’s division of claims into Species G and Species H is improper for at least the reason that there are no claims explicitly limiting the claim scope to the language set forth by the Examiner as characterizing Species H (“the spatial expression patterns are from the same genome”). Under the division of species provided by the Examiner, all claims in Species H appear to be generic, as claims 19, 38, and 57 (all allegedly in Species G) are the only claims wherein the genomic origin of the spatial expression patterns has been explicitly addressed in this fashion.

Assuming, *arguendo*, that the Examiner’s division into Species G and Species H is proper, the Examiner’s characterization of Species H, is incorrect and should be modified. On

page 4 of the Dec. 2005 Office Action, the Examiner characterizes Species H as “the spatial expression patterns are from the same genome.” Applicant contends that this characterization improperly implies all claims falling into Species H have spatial expression patterns that are from the same genome, when no such language is present in these claims. As such, the characterization should be changed.

Nevertheless, Applicant’s provisional election of Species H should in no way be interpreted as limiting the elected claims with the language: “the spatial expression patterns are from the same genome.”

#### Claims Under Consideration

In light of the provisional elections made above, claims 1-81 are pending in this application and claims 1-4, 7-16, 20-23, 26-35, 39-42, 45-54, 58-59, 61-67, 69-75, and 77-81 are under consideration (claims 5, 6, 24, 25, 43, 44, 60, 68, and 76 being part of non-elected Species A; claims 17, 36, and 55 being part of non-elected Species C; claims 18, 37, and 56 being part of non-elected Species E; and claims 19, 38, and 57 being part of non-elected species G).

As noted by the Examiner, upon the allowance of a generic claim, Applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. §1.141.

**Conclusion**

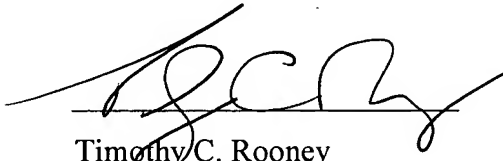
Having addressed the foregoing Sequence Rules Compliance and Election of Species Requirement, it is submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application should receive prompt examination on the merits.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

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Respectfully submitted,

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